

ABSTRACT OF THE DISCLOSURE

This invention includes malleable, biodegradable, fibrous compositions for application to a tissue site in order to promote or facilitate new tissue growth. One aspect of this invention is a fibrous component (e.g., collagen, chitosan, alginate, hyaluronic acid, poly-lactic acid, polycaprolactone, and polyurethane) that provides unique mechanical and physical properties. The invention may be created by providing a vessel containing a slurry, said slurry comprising a plurality of natural or synthetic polymer fibers and at least one suspension fluid, wherein the polymer fibers are substantially evenly dispersed and randomly oriented throughout the volume of the suspension fluid; applying a force, e.g., centrifugal, to said vessel containing said slurry, whereupon said force serves to cause said polymer fibers to migrate through the suspension fluid and amass at a furthest extent of the vessel, forming a polymer material, with said polymer material comprising polymer fibers of sufficient length and sufficiently viscous, interlaced, or interlocked to retard dissociation of said polymer fibers.